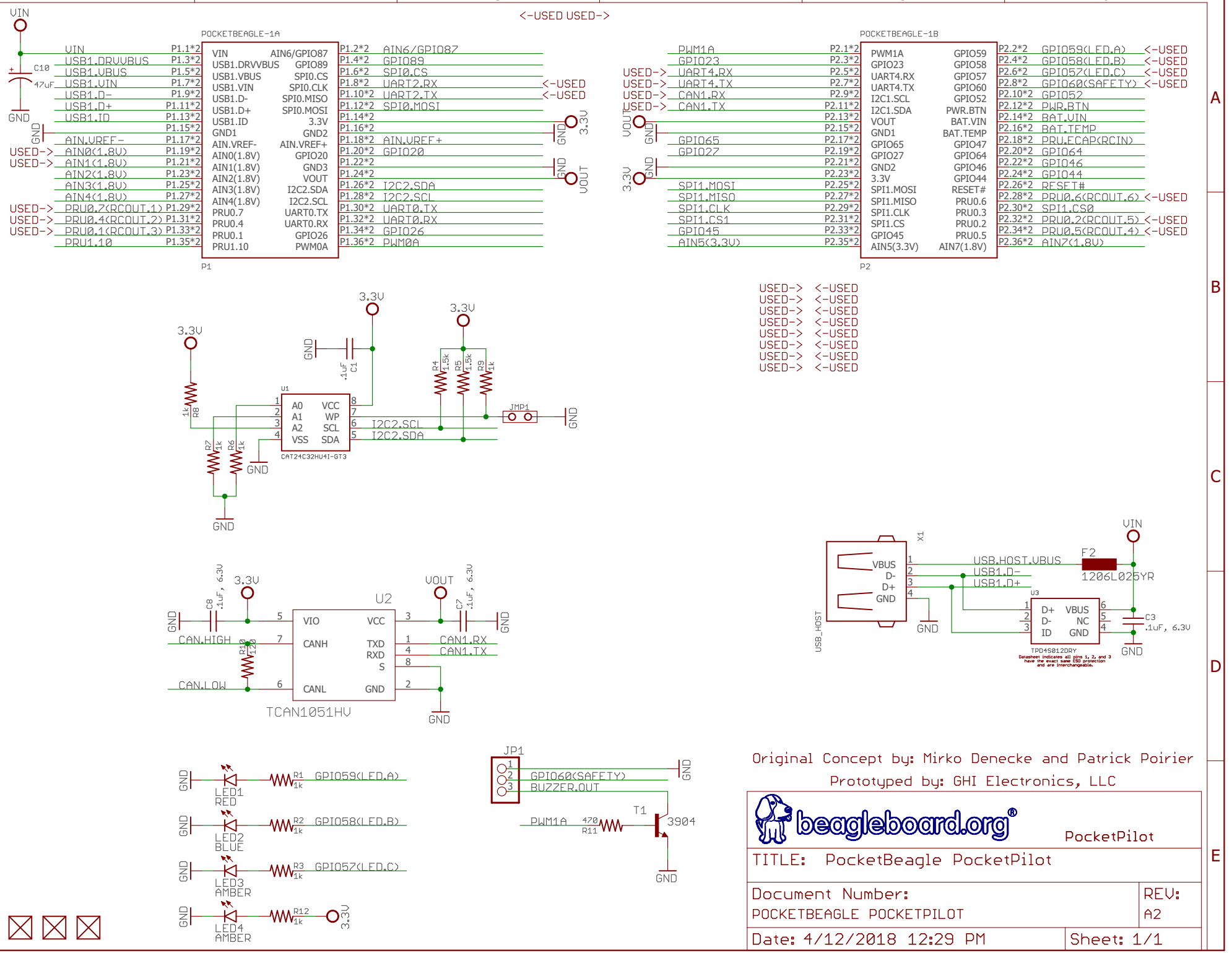

Original Concept by: Mirko Denecke and Patrick Poirier

Prototyped by: GHI Electronics, LLC

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PocketPilot

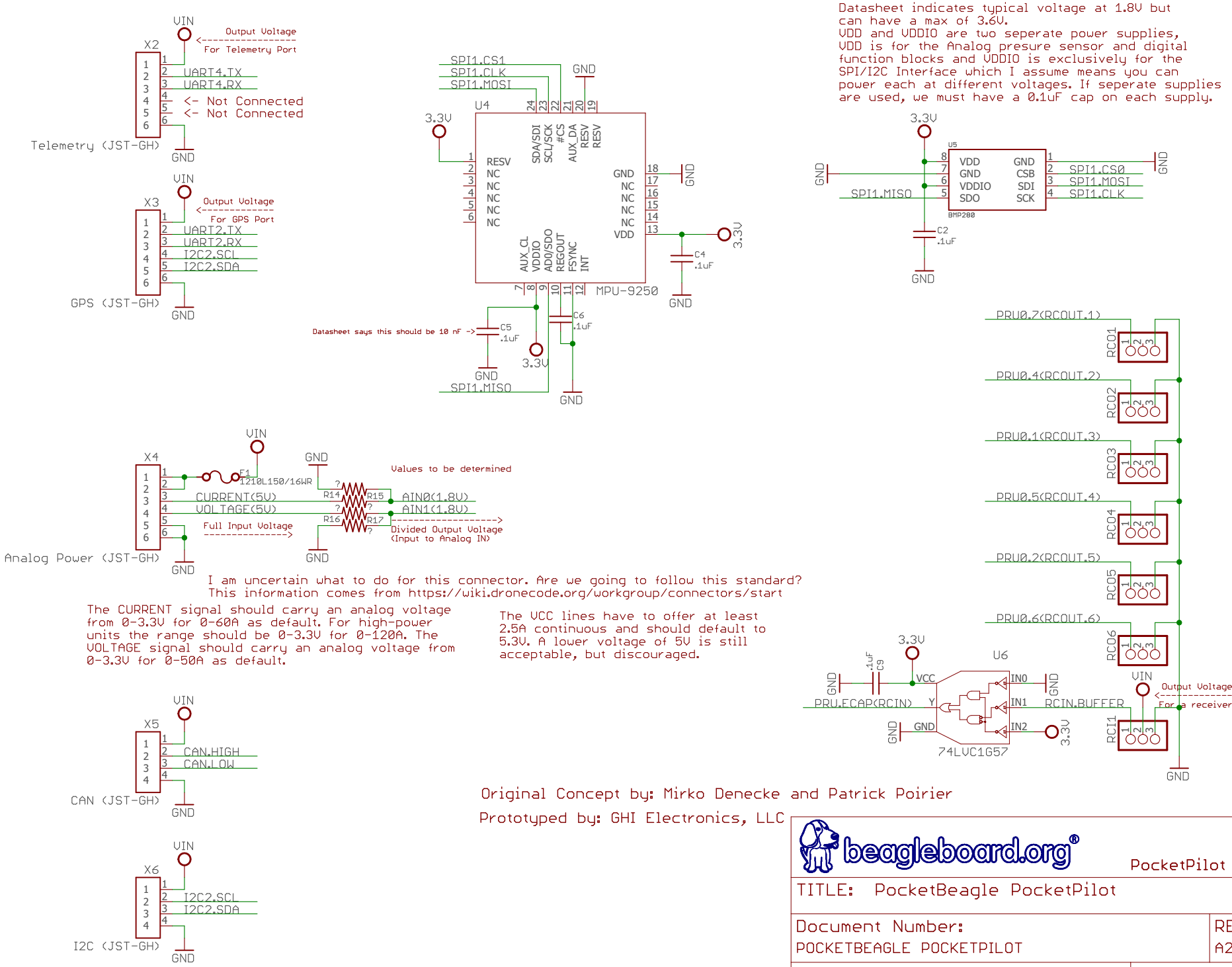
TITLE: PocketBeagle PocketPilot

Document Number: POCKETBEAGLE POCKETPILOT

REV: A2

Date: 4/12/2018 12:29 PM

Sheet: 1/1


Telemetry (JST-GH)
VIN
Output Voltage
For Telemetry Port
UART4.TX
UART4.RX
<- Not Connected
<- Not Connected
GND
GPS (JST-GH)
UART2.TX
UART2.RX
I2C2.SCL
I2C2.SDA
For GPS Port
SPI1.CS1
SPI1.CLK
SPI1.MOSI
SPI1.MISO
3.3V
MPU-9250
RESV
NC
SDA/SDI
SCL/SCK
#CS
AUX_DA
AUX_CL
VDDIO
AD0/SDO
REGOUT
FSYNC
INT
VDD
Datasheet says this should be 10 nF ->
C4 .1uF
C5 .1uF
C6 .1uF
Datasheet indicates typical voltage at 1.8V but
can have a max of 3.6V.
VDD and VDDIO are two seperate power supplies,
VDD is for the Analog presure sensor and digital
function blocks and VDDIO is exclusively for the
SPI/I2C Interface which I assume means you can
power each at different voltages. If seperate supplies
are used, we must have a 0.1uF cap on each supply.
U5
BMP280
VDD
GND
VDDIO
SDO
CSB
SDI
SCK
SPI1.CS0
SPI1.MOSI
SPI1.CLK
C2 .1uF
Analog Power (JST-GH)
F1
1210L150/16WR
CURRENT(5V)
VOLTAGE(5V)
Full Input Voltage
R14
R15
R16
R17
AIN0(1.8V)
AIN1(1.8V)
Values to be determined
Divided Output Voltage
(Input to Analog IN)
I am uncertain what to do for this connector. Are we going to follow this standard?
This information comes from https://wiki.dronecode.org/workgroup/connectors/start
The CURRENT signal should carry an analog voltage
from 0-3.3V for 0-60A as default. For high-power
units the range should be 0-3.3V for 0-120A. The
VOLTAGE signal should carry an analog voltage from
0-3.3V for 0-50A as default.
The VCC lines have to offer at least
2.5A continuous and should default to
5.3V. A lower voltage of 5V is still
acceptable, but discouraged.
PRU0.7(RCOUT.1)
PRU0.4(RCOUT.2)
PRU0.1(RCOUT.3)
PRU0.5(RCOUT.4)
PRU0.2(RCOUT.5)
PRU0.6(RCOUT.6)
RC01
RC02
RC03
RC04
RC05
RC06
U6
74LVC1G57
VCC
IN0
IN1
IN2
Y
PRU.ECAP(RCIN)
RCIN.BUFFER
C9 .1uF
RC11
Output Voltage
For a receiver
CAN (JST-GH)
CAN.HIGH
CAN.LOW
I2C (JST-GH)
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Sheet: 1/1